Making Buildings Better

Chabot College
Hayward, CA

Equipment: Two 600 ton High Efficiency Centravac chillers with VFD and 36 Calmac ice tanks

Engineer: Southland Industries
Contractor: Southland Industries

Project Type: New Central Utility plant with Ice Storage on a Design Build basis.

Customer Challenges:
The Chabot-Las Positas Community College District (CLPCCD) was looking for ways to save energy on their two campuses. Their existing campuses had a motley assortment of DX package and split system equipment. The challenge was designing a new central utility plant that would not only provide chilled and hot water to the campus but also utilize an ice storage system for reducing electrical demand during peak hours.

Trane-Calmac Solutions to the Challenges of the Project:
Trane and Calmac provided extensive modeling of chiller and ice storage capacities that would best fit the budget and the campus demand. Trane Centrifugal chillers had the best energy efficiency at both chilled water temperatures and ice making temperatures. Calmac ice storage tanks had unique scalability attributes that make it very easy to achieve an incremental increase or decrease in ice storage ton-hrs by simply adding or subcontracting Calmac tanks.

Unique Features About the Project:
Since this was a new central utility plant on an existing campus, there was limited space for the chillers, cooling towers, and ice storage tanks. Simplicity and reliability were important factors in choosing the type of chiller and ice storage system.

Why Did the Customer Choose Trane:
As the engineer of record, Southland Industries was looking for a system that not only provided the best value in terms of energy efficiency and life cycle costs for the School District but would also provide reliable ice storage. After an extensive evaluation process of various chillers and ice storage systems, Southland Industries chose the combination of Trane Centrifugal chillers and Calmac Ice Storage tanks. Southland Industries again chose the same combination of Trane-Calmac for the second campus central utility plant located at Las Positas College in Livermore.

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